

## CLAIMS

What is claimed is:

- 5 1. A method for processing objects within a data processing system in a network, the method comprising:  
searching a cache to determine that a set of fragments associated with a set of source identifiers are not in the cache, wherein a source identifier identifies  
10 a source location for obtaining a fragment;  
sending a first request message comprising the set of source identifiers; and  
receiving a first response message comprising the set of fragments.
- 15 2. The method of claim 1 further comprising:  
determining that a fragment comprises a set of linking elements for a set of next-level fragments, wherein each linking element comprises a source  
20 identifier; and  
scanning the fragment to retrieve the set of source identifiers.
- 25 3. The method of claim 2 further comprising:  
retrieving the set of fragments from the first response message; and  
combining the fragment and the set of fragments into an assembled fragment.

4. The method of claim 1 further comprising:  
receiving a second request message; and  
retrieving the set of source identifiers from the  
second request message.

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5. The method of claim 4 further comprising:  
sending a second response message comprising the set  
of fragments.

10 6. The method of claim 5 wherein the second response  
message is a multi-part MIME (Multipurpose Internet Mail  
Extension) response message.

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7. The method of claim 1 wherein the first response  
message is a multi-part MIME response message.

8. The method of claim 1 wherein a source identifier is  
formatted as a URI (Uniform Resource Identifier).

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9. The method of claim 2 wherein a linking element is  
defined using SGML (Standard Generalized Markup  
Language).

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10. The method of claim A1 wherein the first response  
message is an HTTP (Hypertext Transport Protocol)  
Response message and the first request message is an HTTP  
Request message.

11. A method for processing objects within a data processing system in a network, the method comprising:

receiving a request message at a server, wherein the request message comprises a set of source identifiers for a set of fragments;

generating a response message comprising the set of fragments; and

sending the response message.

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12. An apparatus for processing objects within a data processing system in a network, the apparatus comprising:

means for searching a cache to determine that a set of fragments associated with a set of source identifiers are not in the cache, wherein a source identifier identifies a source location for obtaining a fragment;

means for sending a first request message comprising the set of source identifiers; and

means for receiving a first response message comprising the set of fragments.

13. The apparatus of claim 12 further comprising:

means for determining that a fragment comprises a set of linking elements for a set of next-level fragments, wherein each linking element comprises a source identifier; and

means for scanning the fragment to retrieve the set of source identifiers.

14. The apparatus of claim 13 further comprising:

means for retrieving the set of fragments from the first response message; and

means for combining the fragment and the set of fragments into an assembled fragment.

15. The apparatus of claim 12 further comprising:

means for receiving a second request message; and  
means for retrieving the set of source identifiers from the second request message.

16. The apparatus of claim 15 further comprising:  
means for sending a second response message  
comprising the set of fragments.

5 17. The apparatus of claim 16 wherein the second  
response message is a multi-part MIME (Multipurpose  
Internet Mail Extension) response message.

10 18. The apparatus of claim 12 wherein the first response  
message is a multi-part MIME response message.

15 19. The apparatus of claim 12 wherein a source  
identifier is formatted as a URI (Uniform Resource  
Identifier).

20 20. The apparatus of claim 13 wherein a linking element  
is defined using SGML (Standard Generalized Markup  
Language).

25 21. The apparatus of claim 12 wherein the first response  
message is an HTTP (Hypertext Transport Protocol)  
Response message and the first request message is an HTTP  
Request message.

22. An apparatus for processing objects within a data processing system in a network, the apparatus comprising:

means for receiving a request message at a server,  
wherein the request message comprises a set of source

5 identifiers for a set of fragments;

means for generating a response message comprising  
the set of fragments; and

means for sending the response message.

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23. A computer program product in a computer readable medium for use within a data processing system in a network for processing objects, the computer program product comprising:

- 5           instructions for searching a cache to determine that a set of fragments associated with a set of source identifiers are not in the cache, wherein a source identifier identifies a source location for obtaining a fragment;
- 10           instructions for sending a first request message comprising the set of source identifiers; and
- instructions for receiving a first response message comprising the set of fragments.

- 15 24. The computer program product of claim 23 further comprising:

- instructions for determining that a fragment comprises a set of linking elements for a set of next-level fragments, wherein each linking element
- 20           comprises a source identifier; and
- instructions for scanning the fragment to retrieve the set of source identifiers.

- 25 25. The computer program product of claim 24 further comprising:

- instructions for retrieving the set of fragments from the first response message; and
- instructions for combining the fragment and the set of fragments into an assembled fragment.

26. The computer program product of claim 23 further comprising:

instructions for receiving a second request message;  
and

5 instructions for retrieving the set of source  
identifiers from the second request message.

27. The computer program product of claim 26 further comprising:

10 sending a second response message comprising the set  
of fragments.

28. The computer program product of claim 27 wherein the  
second response message is a multi-part MIME

15 (Multipurpose Internet Mail Extension) response message.

29. The computer program product of claim 23 wherein the  
first response message is a multi-part MIME response  
message.

20 30. The computer program product of claim 23 wherein a  
source identifier is formatted as a URI (Uniform Resource  
Identifier).

25 31. The computer program product of claim 24 wherein a  
linking element is defined using SGML (Standard  
Generalized Markup Language).



32. The computer program product of claim 23 wherein the first response message is an HTTP (Hypertext Transport Protocol) Response message and the first request message is an HTTP Request message.

33. A computer program product for processing objects within a data processing system in a network, the computer program product comprising:

instructions for receiving a request message at a  
5 server, wherein the request message comprises a set of  
source identifiers for a set of fragments;

instructions for generating a response message comprising the set of fragments; and

instructions for sending the response message.

[illegible]